#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-013627 Address: 333 Burma Road **Date Inspected:** 22-Apr-2010

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes N/A **Delayed / Cancelled:** No

**Bridge No:** 34-0006 **Component:** OBG

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Joe Alaniz was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**OBG** Assembly Yard

8AE

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 029 located at SEG044A cross beam side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-Tc-U4b-FCM-1.

7EE

Shield Metal Arc Welding (SMAW) welding was performed on weld joint 005 located at CA045 cross beam side of segment. Welder is identified as Mr. Dai Lu (048659). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-B-P-2214-Tc-U4b-FCM-1.

7CW

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 089 and 090 located CSD2-PP52. 5 counter weight side of segment. Welder is identified as Mr. Zhao Aifei (067942). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1 and ZPMC RFI-BJC42R0 procedure.

7DE+7EE

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 009 located OBE7A deck plate splice at bike path side of segment. Welder is identified as Mr. Du Hengyou (037743). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1 and WR12252 repair procedure.

Y Location of repairs areas by above noted welder (037743) is located at 100, 300 and 800mm.

Shield Metal Arc Welding (SMAW) repair welding was performed on weld joint 007 located OBE7A deck plate splice at cross beam side of segment. Welder is identified as Mr. Jiang Zhen (068917). ZPMC QC is identified as Wu Zhi Cheng. The welding variables monitored and recorded by the QC appeared to comply with WPS-345-SMAW-4G (4F)-Repair-1 and WR12250 repair procedure.

Y Location of repairs areas by above noted welder (068917) is located at 800, 1700 and 1900mm.

Miscellaneous Work In Progress

QA Inspector observed ZPMC's personnel performing various job functions at Tail Assembly Yard. Locations and description of work are as followed:

8AE

- 1. Heat straightening was performed on DP stiffeners located on the cross beam side of segment per HSR1 (B)-8342.
- 2. Removal of EP I rib welds for misalignment issues per WR12199 located on the crossbeam and bike path side.

NDT Observation

This QA Inspector observed ZPMC Ultra Sonic Testing (UT) Technician performed UT on various locations in the trial assembly yard. Locations are as followed:

7DE+7EE

1. Deck plate weld splice OBE7A-007, 008 and 009. (Exterior)

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)

8AE

This QA Inspector observed welding being performed on side plate to deck plate hold back weld (SEG044A-31) located at bike path side of segment. This QA noted upon completion of noted weld joint, this QA Inspector observed rain water ran directly over weldment. This QA Inspector issued an incident report for today's work shift.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.





### **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang (150-0042-2372), who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Alaniz,Joe	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer